ON TRACK WITH MDT

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Over the past several months I have read numerous articles regarding the Montana Department of Transportation's use of chemical de-icers. After reading the concerns voiced by both my fellow Montanans and the contracting and trucking industries, I want to explain what winter maintenance options we have to choose from and why de-icer is the best option currently available.

As you probably know, Montana is not alone in our quest for safe winter roads. More than 30 states face the same problems we do in getting snow and ice off the roads quickly so that our travelers have bare pavement to drive on. Over the years we have used road salt mixed with sanding materials, often referred to as abrasives, but they have proven to be expensive to purchase, store, use and clean up. In addition, road salt has demonstrated a poor ability to actively melt snow below 20 degrees Fahrenheit, and it has proven to be more corrosive than the chemical de-icer we now use. We have encountered similar problems with sanding materials, which are easily blown off the road by the wind and/or passing vehicles, resulting in the need for frequent reapplication. When sanding materials stay in place, they improve traction – but we do not achieve our goal of providing bare pavement for our travelers. The most effective way to accomplish that is to use a chemical de-icer, which we have been doing since 1988. As environmental and cost factors have become more prevalent, use of chemical de-icers has become more common. Frankly, I see that trend continuing, for these issues are here to stay.

Specifically, the state of Montana deals with several federal laws regarding clean air and endangered species. Our current highways are commonly located near rivers and streams because it was easier for early Montanans to build on flat stream bottoms than over the mountains. These locations may have made for easier construction, but they have since raised environmental concerns because of possible abrasive run-off. Similarly, the department has had to look at how the use of abrasives affects air quality because of Clean Air Act stipulations on the maximum amount of particulate material (PM-10) that can be suspended in the air.

We can all remember, at one time or another, the dust swirling around in the air from the salt and sanding materials that were spread on our roads, a situation that has a tremendous impact on cities and counties. When the measured amount of particulates in the air exceeds the standards for a community, that community reaches "non-attainment," which means that it does not meet air quality standards. (There are ten Montana communities currently in non-attainment status.) I am sensitive to this issue, not only because of potential health hazards and increased costs to local governments, but because of the

additional restrictions placed on the use of federal funds. In non-attainment areas, federal funds can be used only after it is determined that the state's transportation program, area transportation plan, and the project conform to the requirements of the Clean Air Act. And that's where our choice of winter maintenance options, specifically the use of a chemical de-icer, comes into play, and it is one of the many issues I weighed when deciding whether to continue using chemical de-icer on our roads.

Cost was another of those issues. Specifically, I weighed the expense of using a chemical deicer versus the cost of repeated applications of rock salt and sanding materials and more frequent snowplow passes. A recent study in the Plains and Thompson Falls area in western Montana compared the use of abrasives and chemical de-icers. Following a storm, the highway around Plains was treated with chemical de-icer while the highway around Thompson Falls was treated with abrasives. The results showed that the cost of using a chemical de-icer was roughly one-third less than the cost of using abrasives. Plus, travelers in the Thompson Falls area still had snow on the road, while travelers in the Plains area were driving on bare pavement. As you can see, using a liquid de-icer substantially reduces our winter maintenance costs. Furthermore, I believe it provides you with the safe winter travel environment we both desire.

Even so, we are continuing to research new ways to enhance our delivery of winter road maintenance. MDT is a member of the Pacific Northwest Snowfighters, a consortium of four states and two British Columbia agencies. Collectively, we are involved in a continuing effort to improve/develop less corrosive and more environmental friendly chemical de-icers. To keep you informed about current and potential practices, there are a few websites that contains updated information regarding chemical de-icers. You can access these sites at: http://www.mdt.state.mt.us/departments/maintenance/ and http://wsdot.wa.gov/fossc/maint/pns.

And our efforts to improve winter travel won't stop here. I understand your concerns that our de-icer causes corrosion problems – I see it on my car's wheels just like you do, and I recognize that we all have to wash our cars more frequently. If I could leave you with one thought, it would be the assurance that MDT is working with other states and manufacturers to develop better, more cost effective and customer friendly solutions. The bottom line for me is knowing that MDT has done everything we can do with the resources we have to provide a safe winter highway for Montana travelers, and I will continue reviewing our practices in search of the best options available. For me, that is part of staying "on track with MDT."

David A. Galt
Director